

PROPOSAL PAPER

Independent Technical Panel on Demand Management Measures Final Report on California Landscape Water Use 01-17-16 Draft

Section: 5

Section Title: Required Improvements in Existing Landscapes

Recommendation: #3 Publicly Owned Facilities

Authoring Team: Penny Falcon, William Granger, Lisa Maddaus

Background:

There are many thousands of publicly owned facilities in the State of California, with a cumulative approximation of XXX,XXX acres of landscaped area. In addition, there are approximately here are additional properties leased by the State, and the State has some influence on the landscaping and landscape maintenance practices at these facilities. Within the State, there are a number of key players, including,

All publicly owned facilities are required to report annual water use to the Energy Star Portfolio. According to 2012-2015 data, X amount of water is utilized by public utilities annually. In total, an estimated XX,XXX acres could potentially undergo landscape conversion to sustainable, drought-tolerant landscaping at publicly owned facilities. Estimated land conversion could result in savings of up to XX AFY.

Governor Brown's 2012 Executive Order No. XX-XX aimed to address landscape water use on publically owned facilities. However, there was a lack of implementation resulting from funding difficulties. Overall, the budget estimate to support this effort is \$__ Million.

The majority of the State's publicly owned sites are managed by either the State Architect or the California Department of Transportation (Caltrans). The State Architect oversees the building of all public, K-12 and University buildings. The State Architect has established their own version of the CalGreen building standards code, and recently adopted an ordinance for water use in 2015.

There are approximately 2,400 higher education institutions throughout the State all overseen by the State Architect. Many of these institutions, such as University of California and California State University facilities, already operate at a high standard of landscape management and have dedicated staff for maintenance. There are also college water efficiency groups in existence where staff on campuses work collaboratively to employ initiatives to cut water use. While the majority of campus water use is either indoors or for athletic fields, nearly all landscaped areas can be irrigated with a higher degree of efficiency.

California Department of Transportation (CalTrans) is also a primary water user of the State, with approximately 30,000 acres of land under their jurisdiction requiring approximately 9 billion gallons of

Comment [L1]:

To be reviewed/completed by DWR and ITP Metrics subcommittee.

Comment [MW2]: ACTION ITEM: DWR to request the list of state buildings from the Department of General Service to inform Section 5-3.

Comment [L3]: Based information from DGS - Complete this sentence

Comment [MW4]: ACTION ITEM: PENNY to contact Dan Burgoyne at Department of General Services to discuss DGS efforts on water conservation measures and how they will be approaching outdoor water use to inform development of Section 5-3.

Comment [MW5]: ACTION ITEM: DWR to obtain citations on previous Executive Orders addressing landscape water use on publically owned facilities to inform Section 5-3.

Comment [L6]: Can DWR expand on what the request is for landscape upgrades?

water annually. CalTrans received a directive from the governor resulting from the severe drought conditions, though additional measures could be implemented.

Recommended Action:

The purpose of this recommendation is to ensure that landscapes of publically owned facilities are meeting or exceeding water use efficiency standards. In this way, the public sector can lead by example and promote stewardship towards landscape water use efficiency.

Comment [L7]: From MWELO? This seems vague.

Conservation strategies should be applied to publically owned facilities with large landscapes which include the following: reasonable regulation, water budgets, and education and outreach.

While this recommendation is applicable to all state and locally owned publically facilities, and encouraged at federally owned facilities, including state university and college campuses, it is recommended that facilities with customer service buildings be addressed with highest priority as they are frequented by a significant number of people and thus have high visibility. Their “lead by example” demonstrations will further help to educate the public, demonstrating ideas how beautiful California-friendly landscaping can be.

Proposal:

- 1) Retrofit publically-owned customer service buildings, with higher than 5,000 persons visited per year or other basis to be determined by the Department of Water Resources, from traditional ornamental landscape/turf to sustainable landscaping at a rate of 10% per year on a square footage basis (to achieve complete retrofit in 10 years)¹. Note that functional/recreational, or registered historical site landscape is exempted from this requirement.
- 2) Retrofit all other publically-owned state and local municipal buildings or facilities from traditional landscape/turf to sustainable landscaping within 20 years. Note that functional/recreational, or registered historical site landscape is exempted from this requirement.
- 3) Install demonstration/educational signage identifying sustainable landscaping and water resulting water savings on select landscapes, primarily around customer service buildings.
- 4) At minimum, require all publically owned facilities to operate at MWELO water budget requirements with mandatory stormwater capture where possible.
- 5) Require educational training for state-employed landscape managers on irrigation efficiency, water budgets and landscape management. DWR (or other entity) to develop universal training

Comment [MW8]: May require mandate for implementation, and identification of funding source.

¹ The State Capitol has historical gardens with some high water use plants. MWELO has an exception for existing plant collections that are part of botanical gardens and arboretums, such as these gardens.

curriculum hosted online, including a library of educational materials and landscape design templates².

- 6) Publically owned facilities will review and strongly consider the qualifications of landscape managers bidding on new projects/contracts, and not only consider the lowest bids when selecting contractors as has often been done historically.
- 7) Local public agencies should be authorized to accept private donations for sustainable landscaping, and allow private companies exposure and credit for their donations in return. Non-governmental organizations (NGOs) could also provide this type of service (e.g. the Save Our Creeks groups)
- 8) City and County Parks Departments should be required to meet water budgets, and staff should be Irrigation Association (IA) certified. Antiquated irrigation systems should be updated³.
- 9) The optimized use of recycled and non-potable water on landscapes is encouraged.

Resources from Lisa:

State Green Building Guide:

http://www.water.ca.gov/wateruseefficiency/docs/2014/DT_Green_Building_Action_Plan_for_State_Facilities.pdf

College Water Efficiency Group: <http://www.allianceforwaterefficiency.org/cweg.aspx>

Case studies presented at past calls: <http://www.allianceforwaterefficiency.org/cweg-cases.aspx>

University of California Water Action Plan - 20% by 2020 reduction - Campus' have own Action Plans turned into the Sustainability

<http://www.ucop.edu/sustainability/programs-initiatives/water/index.html>

CSU - Water Action Plans by State Campus

<http://www.calstate.edu/water/documents/Daily-Breeze-4-15-15.pdf>

You Tube: Cal Water State Action Plan

<https://www.youtube.com/watch?v=4xzpU5njf28>

² CalTrans has a large platform developed for online training of Best Management Practices (BMPs). This training platform can be utilized to provide water training to other state agencies. This would leverage the financial investment the State has already made.

³ Select public areas should also explain why certain landscapes are being allowed to stay green. E.g. parks have grass because that is where the community takes their children to play.